WACA/WSDOT Meeting
Minutes for Wednesday, November 28, 2007 Meeting

Attendees:

Jason Brewer, BASF	Michael Rodriquez, Rinker	Gary Albert, Martin Marietta
Scott, DiLoreto, BASF	Craig Matteson, Central	Allan Kramer, Lehigh
Kurt Williams, WSDOT	Keith Howard, Wilder	Bob Raynes, Rinker
Jim Walter, WSDOT	Rob Shogren, Lafarge	Cathy Nicholas, FHWA
Tamson Omps, Glacier NW	Felix Chandra, Stoneway	

Location: WACA's office, 22223 7th Ave. South, Des Moines, WA. 98198

Next WACA Meeting Date:
Thursday, March 6, 2008, at WSDOT HQ Mats Lab, Main Conf Room, 9:30 AM – 12:00 Noon

Future WACA Meetings Dates:
Wednesday, June 18, 2008, at WACA's Office in Des Moines, 9:30 AM – 12:00 Noon
Wednesday, September 17, 2008, at WSDOT HQ Mats Lab, Main Conf Room, 9:30 AM – 12:00 Noon

Meeting Minutes are available at: http://www.wsdot.wa.gov/biz/mats/

Issue: Performance Specifications for Concrete Mix Designs - Mo Sheikhizadeh Issue: Develop performance specification parameters for concrete that can be developed into specifications.

11/28/07 – Mo S. was not able to attend the meeting. This issue is deferred until the next meeting.

Action Plan: Update group at next meeting – Mo S.

Issue: Degradation for concrete Aggregate/Base Course – Jim Walter.

11/28/07 – Jim W. noted that currently a literature review of is being done on degradation by WSU. The group briefly discussed degradation requirements and Jim W. agreed to test the concrete aggregate for degradation as each source comes due for re-approval of the concrete aggregate. A concern was raised that WSDOT Project Offices would require the degradation test immediately since that is a requirement in the Standard Specifications. Kurt agreed to notify the WSDOT Construction Engineers clarifying that degradation test results will be added to the ASA data base as existing pits come up for re-approval and is not required on currently approved concrete aggregate pit sources. A question was asked on how WSDOT test the aggregate for degradation - fractured or round aggregate? [Confirmed that WSDOT test the aggregate in a fractured state.] Another question asked was how much the deg test would cost

on re-approval of the aggregate source. [Currently the cost for WSDOT HQ Mats Lab to perform the degradation test is $177.84.]

Action Plan: Continue to give updates to WACA at Monthly Meetings. – Jim W.

Issue: Increase Amount of GGBFS in Concrete – Rob S./Kurt W./Jim W.

11/28/07 – Kurt W. noted that both a 30% machined placed test section and a 35% hand placed test section of slag concrete had been placed on SR 543. Kurt noted that there were problems with the placement of the 30% slag test section that were caused by the delivery method chosen by the contractor, concrete ready mix trucks were used versus dump trucks, which significantly slowed down the amount of PCCP that could be placed and allowed the concrete mix set up in front of the paver at one point. This does not reflect on how the 30% slag performed, but was a caused by the concrete delivery method selected by the contract. Rob asked when/if the Std Specs would be updated to allow a higher slag content. Kurt replied that the test sections would be evaluated next year and if the 30% test section was performing well, he would support updating the Std Specs to allow 30% slag. But he would like to see a machine placed test section for 35% slag before moving forward on allowing 35% slag in the specifications. Rob mentioned there might be an opportunity to do a 35% test section on a project in Spokane, Felix Chandra asked about doing a test section on a project on the west side.

Action Plan: Update group at next meeting – Rob S./Kurt W./Jim W.

Issue: Truck Scales – Gary A.

11/28/07 – Gary A. said he had presented the proposed update to Section 1-09.2 Weighing Equipment to the AGC Admin Team and focused on the following: 1) Scaleman's Daily Report, 2) Tare Weight Requirements, and 3) scale verification checks. Gary noted that the scaleman's report could be eliminated as it is a hold over form, he proposed tare weights be changed to once every 60 days, and verification weights be reduced from at least twice daily to having the WSDOT inspector pick one truck a day to have verification tests done, but require 2 verification weights per day when no state inspector is present. Cathy N. noted she had also attended the AGC Admin team meeting and she supported keeping the Scaleman's Daily Report because it is a independent check and the form is needed for audits of the project, but agreed with weighing trucks at less frequency the currently required is reasonable. Cathy noted that Mark Scoccolo, with SCI has agreed to rewrite a draft specification for the AGC Admin teams review and the next AGC Admin Team meeting is in January. The group discussed the pros and cons of the current and current proposals for the specification. Cathy agreed to provide information on what Federal requirements are for weighing equipment to the group.

Action Plan: Update group at next meeting – Gary A.

Issue: Specification: 9-03.9(2) Shoulder Ballast and 9-03.17 Foundation Material Class A and Class B. – Gary Albert

1.) It's called Shoulder Ballast but where is it used? In looking at hundreds of project specification, I don't recall seeing Shoulder Ballast spec'd more than 3 times.

2.) Foundation Class A Material has both an 1 1/2" sieve and 1 1/4" sieve requirement (duplication?) and couldn't Shoulder Ballast's gradation work instead? I have seen both Class A and B spec'd numerous times but never used as spec'd. When it is needed, we always ask to get a 2 1/2"x 3/4" Railroad Ballast substituted as an alternate or a 2"x 3/4", 2"x 1 1/4" or 4"x 2" substituted.

11/28/07 – Gary A. noted that he has only used shoulder ballast once for a WSDOT project around guardrail and in comparing the sieve requirements for shoulder ballast and foundation class A and B asked what is shoulder ballast used for and why does Foundation Class A and B have both the 1½ inch and 1¼ inch screens. Gary also recommended the name be changed for shoulder ballast if the material is kept in the specifications as it is typically not used for shoulder work. Keith H. noted he has used shoulder ballast on private work and should ballast is a free draining material. Group discussed and recommended the sieves be graphed and that WSDOT delete either the 1½ inch screen from Class A and 1¼ inch screen from Class B or delete the 1¼ inch screen from Class A and the 1½ inch screen from Class B. Jim W. to check into what WSDOT uses for Shoulder Ballast and Foundation Class A and B, and then look at proposal to remove sieves and rename shoulder ballast.

Sieve Size	Std Spec 9-03.17 Foundation Class A	Std Spec 9-03.17 Foundation Class B	Std Spec 9-03.9(2) Shoulder Ballast
2-1/2	98-100	95-100	100
2	92-100	75-100	65-100
1-1/2	72-87	30-60	
1-1/4	58-75	0-15	
1			
3/4	27-47	0-1	40-80
3/8	3-14	--	
U.S. No. 4	0-1	--	5 max.
U.S. No. 100			0-2
% Fracture			75 min

Action Plan: Update Group at next WACA meeting – Jim W./Gary A.

Issue: Use of prepackaged concrete: Kurt W.

Use of prepackaged concrete with hand mixing for fence posts, pipe plugs, pipe collars, Ref: Section 6-02.34(B)

11/28/07 – Kurt W. noted that WSDOT is getting request to use prepackaged concrete and hand mixing for items such as fence post and pipe plugs. Kurt also mentioned that there is a draft specifications being reviewed by WSDOT, and he is currently directing project offices to accept bagged cement using small quantities acceptance per the WSDOT Construction manual. The group discussed this issue further and concluded that adding more specifications was not the best solution, and Kurt agreed to write further clarification for the WSDOT construction manual on how to accept small quantities of bagged cement.

Action Plan: Develop update to construction manual for review by WACA –Kurt W.

Issue: GSP notes WSDOT responsible for early break cylinders – Craig M/Mo S.

11/28/07 – Kurt noted that Mo had reviewed the GSP and determined the GSP could be deleted as it was no longer needed. The GSP, [GSP 02317O1.GB6] was originally developed for segmental bridge construction and the GSP is out of date.

Action: Issue is Complete:

Issue: Acceptance Test for pumped concrete – Bob R.

11/28/07 – Bob R. reviewed that there are problems with WSDOT's concrete acceptance testing where concrete is sampled and tested at the discharge of the concrete pump. The air content in concrete changes when the concrete is pumped, and there is variability in how much the air content changes depending on the type of pump and boom configuration.
Bob R. handed out the following:
NRMCA CIP 21 from 1992. ***The updated version of NRMCA CIP 21 dated 2005 is available at: http://www.nrmca.org/aboutconcrete/cips/21p.pdf***
FHWA Tech Brief: Freeze Thaw Resistance of Concrete with Marginal Air Content, Available at: ***http://www.fhwa.dot.gov/pavement/concrete/pubs/06118/***
Note the Full FHWA Report: ***Freeze-Thaw Resistance of Concrete With Marginal Air Content,*** *is available at:* **http://www.fhwa.dot.gov/pavement/pccp/pubs/06117/06117.pdf**
And Bob referenced a report from the University of Purdue: ***Controlling Air Content in Concrete That is Being Pumped, A Synthesis Study****, Available at:*
http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1517&context=jtrp
Allen K. handed out handed out VRMCA Technical Bulletin No. 1, available at:
http://www.vrmca.com/downloads/files/VRMCA-Tech-Bulletin2-2006.pdf
and noted this[Virginia RMCA Tech Bulletin] required sampling to be done at the discharge of the truck and asked if WSDOT was complying with legal requirements in its specifications. Jim W. noted that WSDOT's specifications are based upon and comply with the Washington State laws, WSDOT requirements and Federal law which requires FHWA approval of the WSDOT Std Specifications.

The group continued discussing the issue of pumping concrete and the affects on concrete at length covering topics such as testing pumped concrete requires not changing the boom angles as this affects the air content in the concrete, one option mentioned is to use a 5 gallon bucket next to pump discharge location to collect a concrete sample, possibility of using a different air void requirement for the first few trucks, a suggestions to look at what other states require in their specifications, and that previous study's had been done by WACA and WSDOT that documented the affects pumping has on concrete.

Action: WACA needs to make a proposal to WSDOT on this issue: Bruce C/Bob R./ Mo S.